

It is noted that applicants have filed an Amendment after the Final Rejection on 3/19/08; applicants' attorney has addressed the issues of record. The proposed amendment will not be entered ; and, it is not in a condition for allowance.

The Status of Claims

Claims 1-30 are pending.

Claims 1-28 are rejected.

Claims 29-30 are withdrawn.

Claim Rejections - 35 USC § 103

Applicants' argument filed 03/19/08 have been fully considered but are not persuasive.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The rejection of Claims 1-28 under 35 U.S.C. 103(a) as being unpatentable over Housley et al (US 2001/0007910) in view of in view of D.M. Lewis et al (US 3,406,196).

The rejection of Claims 1-28 under 35 U.S.C. 103(a) as being unpatentable over Housley et al (US 2001/0007910) in view of in view of D.M. Lewis et al (US 3,406,196) has been maintained with the reasons of record filed on 9/28/07.

Applicants' attorney has addressed the issues of record; however, has not rebutted the claim rejections **1-28** under 35 USC 103 (a).

New Issues:

In the claim 1, the phrases "comprising an organic acid" and "thereby obtaining improved oxygen utilization" are added; however, they would raise new issues that would require further consideration and/or search.

Applicants' Argument

- I. Applicants argue the following issues:
 - a. Housley et al do not teach the high oxygen utilization during the process with a residual amount of oxygen.
 - b. D.M. Lewis et al do not teach the employment of an organic solvent to produce high quality dicarboxylic acid products.

The applicants' argument have been noted, but these arguments are not persuasive.

First, with respect to the first argument, the Examiner has noted applicants' argument. However, the introduction of the phrases "comprising an organic acid" and "thereby obtaining improved oxygen utilization" in the proposed amendment will not be entered because of raising new issues that would require further consideration and/or search.

Also, Housley et al expressly teaches the followings (see page 3 , lines 2-12):

a mixture comprising (i) recycled solvent, recycled mother liquor and catalyst, line 11, (ii) reactor condensate from the second reactor, line 12, and (iii) fresh acetic acid make-up, line 13. The mixed feed stream will contain typical catalyst components (e.g., Co, Mn, Br), at generally diluted concentrations from what would normally be present when using a single conventional oxidation reactor. Optionally, but not shown, control of catalyst concentration in the first reaction zone can be achieved by bypassing some of the catalyst-containing mother liquor, line 11, directly to second reactor 20.

From this paragraph, it becomes clear that unreacted oxygen from the second oxidation stage can be recycled to the first oxidation stage in view of "recycled mother liquor (which contains oxygen)." Therefore, applicants' argument is not persuasive.

Second, with respect to the second argument, the Examiner has noted applicants' argument. However, the introduction of the phrases "comprising an organic acid" and "thereby obtaining improved oxygen utilization" in the proposed amendment will not be entered because of raising new issues that would require further consideration and/or search.

Furthermore, Housley et al expressly teaches the followings (see page 1 , paragraph#0003):

Art Unit: 1625

[0003] Practically all terephthalic acid is produced on a commercial scale by catalytic, liquid phase air oxidation of paraxylene. Commercial processes use acetic acid as a solvent and a multivalent heavy metal or metals as catalyst. Cobalt and manganese are the most widely used heavy metal catalysts, and bromine is used as a renewable source of free radicals in the process.

Therefore, applicants' argument is not persuasive.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Taylor Victor Oh whose telephone number is 571-272-0689. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Andres can be reached on 571-272-0867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/713,660
Art Unit: 1625

Page 6

/Taylor Victor Oh/

Primary Examiner, Art Unit 1625

4/11/08

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